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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,495	03/26/2004	Shusuke Mogi	Q80266	7882

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EXAMINER	
FEGGINS, KRISTAL J	

ART UNIT	PAPER NUMBER
2861	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/809,495	MOGI, SHUSUKE	
	Examiner	Art Unit	
	K. Feggins	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,7,8,10 and 11* is/are rejected.

7)☒ Claim(s) *3,6,9 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/26/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1, 4, 6, 7 and 10 recites the limitation "said platen roller" in lines 12, 13, 20 of claim 1, line 3 of claim 4, line 5 of claim 6, line 16 of claim 7 and line 3 of claim 10. There is insufficient antecedent basis for this limitation in the claim. Examiner is unsure if applicant is claiming, a platen, meaning one platen roller or a plurality of platen rollers when applicant refers to "said platen roller" because each printing unit has a platen roller and there a plurality of printing units (for the purpose of this rejection Examiner will assume that there is at least one said platen having a detector for detecting the rotational speed).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 4, 7, 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohara et al. (US 5153605) in view of Fukunka et al. (US 5,820,274).

Ohara et al. disclose the following claimed limitations:

* regarding claims 1 & 7, said color thermal printer comprising: a rotating speed detector disposed on said platen roller for detecting rotating speed of said platen roller (col 4, lines 34-68, col 5, lines 1-41, figs 2, 3).

* regarding claims 2 & 8, a memory for storing data table in which said rotating speed fluctuation amount is associated with said transporting correction quantity (col 4, lines 34-46, figs 2, 3) for the purpose of correcting

* regarding claim 4, wherein said rotating speed detector is a pulse encoder which outputs pulse signal according to the rotating amount of said platen roller (col 4, lines 34-68, col 5, lines 1-41, figs 2, 3).

* regarding claim 10, wherein in said speed detecting step, a rotating amount of said platen roller is detected in a stepwise manner/printing time of one line/ (col 4, lines 34-68, col 5, lines 1-41, figs 2, 3).

Fukunka et al. disclose the following claimed limitations:

* regarding claims 1 & 7, a color thermal printer & method for recording full color image by recording one color image at each of printing units during transportation of a long recording sheet by a couple of transporting rollers, a plurality of said printing units being disposed along the transporting path, each of said printing units including a platen roller for supporting said long recording sheet, and a thermal head for executing thermal recording of each color image by pressing said recording sheet which is supported by said platen roller (figs 1A-C, 2-7) for the purpose of providing a color printer with easy ink ribbon replacement maintenance.

* a controller for recording image by driving said thermal head of each printing unit when transporting quantity of said recording sheet transported by said transporting

roller couple reaches target value corresponding to the recording start position, the controller calculating the transporting correction quantity of said recording sheet from the rotating speed fluctuation amount of said platen roller, to correct said target value so as to correspond to the recording start position of a directly downstream printing unit (cols 9-11, col12, lines 1-62, figs 1A-C, 2-7) for the purpose of controlling the speeds of the ink ribbon and the conveying speed of the printing paper thereby outputting information to the printing heads.

It would have been obvious at the time of the invention was made to a person having ordinary skill in the art to utilize a color thermal printer & method for recording full color image by recording one color image at each of printing units during transportation of a long recording sheet by a couple of transporting rollers, a plurality of said printing units being disposed along the transporting path, each of said printing units including a platen roller for supporting said long recording sheet, and a thermal head for executing thermal recording of each color image by pressing said recording sheet which is supported by said platen roller; and a controller for recording image by driving said thermal head of each printing unit when transporting quantity of said recording sheet transported by said transporting roller couple reaches target value corresponding to the recording start position, the controller calculating the transporting correction quantity of said recording sheet from the rotating speed fluctuation amount of said platen roller, to correct said target value so as to correspond to the recording start position of a directly downstream printing unit, as taught by Fukuoka et al. into Ohara et al for the purposes of the providing a color printer with easy ink ribbon replacement maintenance and for

the purpose of controlling the speeds of the ink ribbon and the conveying speed of the printing paper thereby outputting information to the printing heads.

4. Claims are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohara et al. (US 5153605) as modified by Fukunka et al. (US 5,820,274) as applied to claims 1 & 7, respectively, above, and further in view of Yamaguchi et al. (US 6554394 B1).

Ohara et al. as modified by Fukunka et al. all of the claimed limitations except for the following:

* regarding claim 5, wherein said pulse encoder includes a disk-shaped slit plate formed with a plurality of slits which extends in a radial direction and a photoelectric sensor of a transmission type for detecting passage of said slits to output said pulse signal.

* regarding claim 11, wherein in said speed detecting step, a pulse encoder is used for detecting said rotating amount photoelectrically.

Yamaguchi et al. (US 6554394 B1) disclose the following:

* regarding claim 5, wherein said pulse encoder includes a disk-shaped slit plate formed with a plurality of slits which extends in a radial direction and a photoelectric sensor of a transmission type for detecting passage of said slits to output said pulse signal (col 21, lines 46-67, col 22, lines 1-14, 55-67) for the purpose of determining accurate distance moved of a mechanism.

* regarding claim 11, wherein in said speed detecting step, a pulse encoder is used for detecting said rotating amount photoelectrically (col 21, lines 46-67, col 22, lines 1-14, 55-67) for the purpose of determining accurate distance moved of a mechanism.

It would have been obvious at the time of the invention was made to a person having ordinary skill in the art to utilize a pulse encoder includes a disk-shaped slit plate formed with a plurality of slits which extends in a radial direction and a photoelectric sensor of a transmission type for detecting passage of said slits to output said pulse signal; and wherein in the speed detecting step, a pulse encoder is used for detecting the rotating amount photoelectrically, as taught by Yamaguchi et al. into Ohara et al. as modified by Fukuoka et al. for the purpose of determining accurate distance moved of a mechanism.

Allowable Subject Matter

5. Claims 3, 6, 9 & 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The primary reason for indicating allowable subject matter of claim 3 is the inclusion of the limitations of a color thermal printer that includes a controller that obtains the correction value by detecting the rotating speed fluctuation amount at each fixed period of time, calculates a cumulative correction quantity by accumulating the correction quantity during recording of said image, to correct said target value according

to the cumulative correction quantity so as to correspond to the recording start position of said directly downstream printing unit. It is these limitations found in the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for indicating allowable subject matter of claim 6 is the inclusion of the limitations of a color thermal printer that includes the rotating speed detector is provided on the platen roller of the first and second printing units. It is this limitation found in the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for indicating allowable subject matter of claim 9 is the inclusion of a method steps of a color printer that includes obtaining the correction quantity by detecting the rotating speed fluctuation amount at a fixed period of time; calculating a cumulative correction quantity by accumulating said correction quantity during recording of the image; and correcting the target value according to the cumulative correction quantity, so as to correspond to the recording start position of said directly downstream printing unit. It is these steps found in the claim, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for indicating allowable subject matter of claim 12 is the inclusion of a method steps of a color printer that includes in the speed detecting step, the rotating speed in said first and second printing units is detected. It is this step found

in the claim, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Communication With The USPTO

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talbott Dave can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/05

K. FEGGINS
PRIMARY EXAMINER